

Ciaran A. J. O'Hare

Curriculum Vitae

School of Physics, University of Sydney
Physics Rd, Camperdown NSW 2006, Australia

✉ ciaran.aj.ohare@gmail.com

🌐 cajoha.re

🐦 [cajohare](https://twitter.com/cajohare)

🌐 [cajohare](https://www.linkedin.com/company/cajohare)

Academic history

- 2022 **ARC DECRA Fellow**, *School of Physics*, University of Sydney, Australia.
Grant: \$430.1k, "Unmasking dark matter: from the laboratory to the Milky Way", sole investigator
- 2019–2021 **Postdoctoral Research Associate**, *School of Physics*, University of Sydney, Australia.
Supervisor: Celine Boehm
- 2017–2019 **Postdoctoral Researcher**, *Departamento de Física Teórica*, Universidad de Zaragoza, España.
Supervisor: Javier Redondo

Education

- 2013–2017 **PhD Physics**, *Particle Cosmology group*, University of Nottingham, United Kingdom.
Supervisor: Anne Green
Thesis: [WIMPs, neutrinos and axions in the next generation of dark matter experiment](#)
- 2009–2013 **Msci Physics**, University of Nottingham, 1st class (average: 92%).
Supervisor: Adam Moss
Thesis: [Dynamics of domain wall systems](#)

Talks

Slides for the majority of my talks are available online at cajoha.re/talks

Invited seminars and colloquia

- 2022 **Swinburne Institute of Technology Colloquium**, 'New discoveries from Gaia and direct dark matter searches'.
- 2022 **UC Santa Barbara**, 'Recoil imaging for dark matter, neutrinos, and BSM physics'.
- 2022 **University of Hawaii**, 'Axions as dark matter'.
- 2022 **Sydney-UNSW Colloquium**, 'Searching for dark particles across disciplines'.
- 2022 **Indian Institute of Technology, Mumbai**, 'New discoveries from Gaia and direct dark matter searches'.
- 2022 **University of New Mexico**, 'Venturing into the neutrino fog'.
- 2022 **Northwestern University**, 'Venturing into the neutrino fog'.
- 2021 **Georg-August-Universität Göttingen**, 'Venturing into the neutrino fog'.
- 2021 **UC San Diego**, 'ALPs to Axions: dark matter in the post-inflationary scenario'.
- 2021 **University of Nottingham**, 'Axions as dark matter'.
- 2021 **Tsung-Dao Lee Institute**, 'Venturing into the neutrino fog'.
- 2021 **Nanjing Normal University**, 'Venturing into the neutrino fog'.
- 2021 **Melbourne University**, 'Venturing into the neutrino fog'.
- 2021 **SLAC**, 'The status and future of directional recoil detection'.
- 2021 **Fermilab**, 'Directional dark matter detection and the CYGNUS project'.
- 2021 **UCLA**, 'Directional dark matter detection'.
- 2021 **Sydney CPPC**, 'Dark matter detection off the beaten path'.
- 2020 **Australian National University**, 'Directional dark matter detection'.
- 2020 **University of New South Wales**, 'Axions and their detection'.

- 2019 University of Barcelona, 'Axtronomy'.
- 2019 University of Sydney, 'Dark matter detection'.
- 2019 IFT, Madrid, 'Gaia and direct dark matter detection'.
- 2019 Laboratori Nazionali di Frascati, 'Introduction to directional detection'.
- 2018 Texas A&M University, 'How to build an axion observatory'.
- 2018 Max Planck Institute, Munich, 'Axiostronomy'.
- 2017 King's College London, 'Directly detecting the Milky Way halo'.
- Invited presentations**
- 2022 CDMPP Annual Meeting, Geelong, Australia.
'Wave-like dark matter'
- 2022 First International Conference on Axion Physics and Experiment, Virtual.
'Axion minivoids'
- 2022 BREAD Collaboration meeting, Virtual.
'The dark matter velocity distribution'
- 2022 IDM Conference, Vienna, Austria.
'Concluding talk'
- 2022 Snowmass Summer Meeting, Seattle, USA (Virtual).
'IF5: MPGDs for DM, neutrinos and BSM'
- 2022 International Workshop on Underground Physics, Tokyo, Japan.
'Recoil imaging and the CYGNUS experiment'
- 2021 International Joint Workshop on the SM and Beyond 2021, NTHU, Taiwan.
'Searching for the axions, on Earth and in space'
- 2021 Theory Workshop, DESY.
'Directional dark matter detection'
- 2021 ARC CoE for Dark Matter Fortnightly Meeting, Virtual.
'Dark photon limits: A cookbook'
- 2021 Asian Forum for Accelerators and Detectors, Novosibirsk (Virtual).
'Directional dark matter detection and the Cygnus experiment'
- 2021 ARC CoE for Dark Matter ECR Workshop, Virtual.
'The Cygnus experiment'
- 2021 Axions beyond Gen-2, University of Washington (Virtual).
'Axion haloscopes and the local dark matter distribution'
- 2020 Light Dark World workshop, Virtual.
'Axion constraints 2020'
- 2020 Magnificent CEvNS workshop, Virtual.
'Neutrino floors'
- 2020 IAXO Collaboration Meeting, Virtual.
'Axion helioscopes as solar magnetometers'
- 2020 MIAPP Workshop on axion cosmology, Technical University of Munich.
'Axion haloscopes and the local dark matter distribution'
- 2019 Dark Matter Searches in the 2020s, Institute for Cosmic Ray Research, Tokyo.
'Breaking through the neutrino floor'
- 2019 Cygnus directional detection workshop, Sapienza University of Rome.
'Physics case for the Cygnus experiment'
- 2019 DMUK Meeting, Kings' College London.
'Gaia and direct dark matter detection'
- 2019 Saturnalia Workshop, Universidad de Zaragoza.
'Dark Matter Hurricane'
- 2019 CYGNUS workshop, University of Hawaii (Virtual).
'Physics reach for the Cygnus experiment'

- 2018 **MADMAX Collaboration Meeting**, *Max Planck Institute, Munich*.
'The axion velocity distribution'
- 2018 **Workshop on ultralight dark matter and axions**, *University of Michigan*.
'Directional axion detection'
- 2017 **Theoretical Physics Seminar**, *Universidad de Zaragoza*.
'Directly detecting the Milky Way halo'
- 2016 **IDM**, *University of Sheffield*.
'Dark matter detection and the neutrino floor'
- 2015 **11th Patras workshop on axions, WIMPs and WISPs**, *Universidad de Zaragoza*.
'Theoretical prospects for directional WIMP detection'

Other conference & workshop presentations

- 2022 **Identification of Dark Matter**, *Vienna, Austria*.
'Venturing into the neutrino fog'
- 2022 **ACAMAR Meeting on Astroparticle Physics**, *Virtual*.
'Searching for axions as dark matter'
- 2021 **Asia-Pacific Workshop on Particle Physics and Cosmology**, *Virtual*.
'Searching for dark photons as dark matter'
- 2019 **TeVPA**, *Sydney, Australia*.
'The Cygnus experiment'
- 2019 **15th Patras workshop on axions**, *Freiburg, Germany*.
'Direct detection and *Gaia*'
- 2018 **OAJ-LSC Synergies meeting**, *Universidad de Zaragoza*.
'*Gaia* and direct dark matter detection'
- 2018 **14th Patras workshop on axions**, *DESY, Germany*.
'Directional axion detection'
- 2017 **13th Patras workshop on axions**, *Thessaloniki, Greece*.
'Axion/WIMP astronomy in dark matter experiments'
- 2017 **IOP Joint APP and HEP Conference**, *University of Sheffield*.
'Measuring the dark matter velocity distribution with WIMPs and axions'
- 2016 **TeVPA**, *CERN*.
'Dark matter detection and the neutrino floor'
- 2016 **LINK'16 Interdisciplinary conference**, *East Midlands Conference Centre*.
'Detecting Dark Matter'
- 2015 **DMUK**, *University of Liverpool*.
'Directional dark matter detection and the neutrino background'
- 2014 **BUSSTEPP**, *University of Southampton*.
'Directional detection of dark matter substructure'

Code

- 2021 **CompAxion**.
Python notebooks for calculating model parameters and constraints for the "companion axion" model.
- 2021 **NeutrinoFog**.
Code for the neutrino floor/fog for direct dark matter searches
- 2021 **DarkPhotonCookbook**.
Code for accounting for daily modulation effects in direct searches for dark photons
- 2020 **AxionLimits**.
Library of astrophysical, cosmological and experimental constraints on axions and axion-like particles [DOI: 10.5281/zenodo.3932430, Citations: 60]
- 2020 **solax**.
Likelihood-based data analysis code for axion helioscopes such as IAXO. Includes precise solar axion flux calculations which account for the solar magnetic field.

2020

AtmNuFloor.

Code for calculating the neutrino floor to direct dark matter experiments. It also allows for the inclusion of time, target and direction dependent methods for overcoming the neutrino floor.

2019

DarkShards.

Code for analysing *Gaia* data to fit velocity and action-space substructures, as well as generate their corresponding signals in dark matter experiments.

2019

IAXOmass.

Likelihood analysis code for measuring the axion mass in IAXO.

Other academic service

2022

Panel member, University of Sydney Scholar Awards.

Assessing awardees of undergraduate scholarships for the Faculty of Science

2022

Local organising committee, Sydney Spring Summer School, Sydney, Australia.

<https://indico.cern.ch/event/1157732/>.

2022

Local organising committee, Dark Side of the Universe Conference, Sydney, Australia.

<https://indico.cern.ch/event/1107937/>.

2021

Associate investigator.

ARC Centre of Excellence for Dark Matter Particle Physics

2022

International advisory committee, International Dark Matter conference, Vienna, Austria.

<https://indico.cern.ch/event/922783/>.

2020

Sydney CPPC.

2022

Organising a series of weekly online seminars and maintaining the [YouTube channel](#).

2020

Dark Chatter.

2022

Host and organiser of a [web-series](#) for the promotion of early career researchers.

2021

Snowmass '21, white paper convener.

2022

Instrumentation Frontier (IF5-WP3): Recoil imaging with micro-pattern gas detectors

2021

PDG Review.

Supplied all six original figures for the chapter "Axions and other similar particles" in the 2021 [Particle Data Group \(PDG\) review of particle physics](#).

2020

International advisory committee, International Dark Matter conference, Vienna, Austria.

<http://idm2020.hephy.at/>.

2018

Local organising committee, 4th MADMAX Collaboration Meeting, Zaragoza, Spain.

<https://indico.mpp.mpg.de/event/6018/overview>.

2018

Local organising committee, Probing the dark universe synergies workshop, Zaragoza, Spain.

<https://riastronomia.es/en/probing-the-dark-universe-oaj-lsc-synergies/>.

2015

Journal referee.

2022

Journal of Cosmology and Astroparticle Physics, Physical Review Letters, Physical Review D, Astronomy & Astrophysics, SciPost Physics, European Physics Journal C

Teaching and Supervision

The University of Sydney

2022

Lecturer for OLET1640: Astronomy, from the Big Bang to Darkness, 1st year course.

4 hours lectures + 16 hours tutorials

2022

Dalyell Individual Research SCDL3991, 2nd year BSc project.

2021

Dalyell Showcase SCDL1991, Groups of 1st year BSc students (semester-long project).

2022

10 students total across two years

2020

Physics Honours, 4th year BSc(Hons) students (year-long project).

2022

3 students total across three years

2020

Physics Special Studies Program (SSP), 1st and 2nd year BSc students (semester-long project).

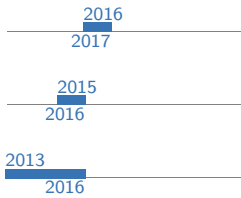
2022

17 students total across three years

2020

Summer internship, High school student.

University of Nottingham



MSci Project, Developing Monte Carlo simulations for dark matter detectors.
(2 × 4th year students)

MSci Project, Distinguishing neutrino and WIMP signals in dark matter detectors.
(2 × 4th year students)

2nd year MSci physics workshops, *University of Nottingham*,

Approximately 3 hr/wk of workshop instruction in four 2nd year Physics courses.

- Quantum mechanics
- Thermal Physics and Statistical Mechanics
- Vector calculus and electromagnetism
- Optics and Fourier analysis

Media

Articles written



CERN Courier, *Astroparticle physicists head down under* .

<https://cerncourier.com/a/astroparticle-physicists-head-down-under/>

Media coverage



New Scientist, *DNA-based detector could precisely track subatomic particles*.

<https://www.newscientist.com/article/2316360-dna-based-detector-could-precisely-track-subatomic-particles/>



American Physical Society News, *Redefining How Neutrinos Impede Dark Matter Searches*.

<https://physics.aps.org/articles/v14/s154>



Centre of Excellence for Dark Matter Particle Physics, *Meet the researcher*.

<https://www.centredarkmatter.org/all-posts/meet-the-researcher-ciaran-ohare-htrjn-mjf82>



Discover magazine, *How DNA can help in the search for dark matter* .

<https://www.discovermagazine.com/the-sciences/how-dna-can-help-the-search-for-dark-matter>



AstroBites, *MACHOs Find a New Weight Class to Compete In* .

<https://astrobites.org/2020/09/08/machos-weight-class/>

My publication *O'Hare et al. 2018* was covered by 49 media outlets in 2018.

Altmetric score of 495 (top 5% of all research outputs): <https://aps.altmetric.com/details/45496963>



CNN, *A dark matter hurricane is headed our way [sic]*.

<https://edition.cnn.com/2018/11/19/opinions/dark-matter-hurricane-headed-our-way-lincoln-opinion/index.html>



Astronomy magazine, *A 'dark matter hurricane' is storming past Earth* .

<http://www.astronomy.com/news/2018/11/a-dark-matter-hurricane-is-storming-past-earth>



Cosmos magazine, *Researchers brace for dark matter 'hurricane'* .

<https://cosmosmagazine.com/space/researchers-brace-for-dark-matter-hurricane>



CNET, *Scientists predict a 'dark matter hurricane' will collide [sic] with the Earth* .

<https://www.cnet.com/news/scientists-predict-a-dark-matter-hurricane-will-collide-with-the-earth/>



Discover Magazine, *A 'Dark Matter Hurricane'* .

<http://blogs.discovermagazine.com/d-brief/2018/11/12/dark-matter-hurricane/>



Gizmodo Magazine, *So What's Going on With That 'Hurricane of Dark Matter?'* .

<https://gizmodo.com/so-whats-going-on-with-that-hurricane-of-dark-matter-1830420899>

Outreach

Aimed at the public



Dark Matter Day, *U. Sydney*.

Organiser, speaker and panel member for an annual series of events organised as part of the worldwide Dark Matter Day (31st October)



Science Slam, *DESY, Hamburg*.

'On safari in the Milky Way'



Pint of Science Festival, *Bunkers Hill pub, Nottingham*.

'The Cosmic Pint'



Guest lecture, *Manchester Astronomy Society*.

'The Dark Side'

- 2015
TEDxUoN talk, *Portland Building, Nottingham.*
 'Detecting Dark Matter'
- 2015
Pub.hD talk, *Vat and Fiddle pub, Nottingham.*
 'Detecting Dark Matter'
- Aimed at students**
- 2021
PhySoc guest lecture, *University of Sydney.*
 Lecture on 'Dark matter' aimed at Sydney undergraduates
- 2020
Sydney Physics Dialogues, *University of Sydney.*
 Lecture on 'Dark matter' aimed at international undergraduates
- 2018
School visit, *Colegio Nuestra Señora del Pilar, Zaragoza.*
 Aimed at 14-16 year old science and english students.
- 2017
School visit, *Chilwell school, Nottinghamshire.*
 Aimed at students thinking of studying physics at university.
- 2014
Ambition Nottingham.
 A series of programs at UoN aimed at local students from backgrounds under-represented at universities in the UK. I was heavily involved in the physics and astronomy 'course tasters' for the scheme as both an organiser and a lecturer.
- 2013
University of Nottingham open days.
 My roles involved guiding visitors around the School of Physics and giving information on research programs, undergraduate and postgraduate courses. I also ran drop-in sessions and demonstrations for the Particle Cosmology group.

I upload slides and other material related to my outreach at <https://cajoha.re/outreach>

Publications

Total citations: 1,952. Collected from the [inspireHEP](#) database

- McAllister et al. 2022 **39. 'Limits on dark photons, scalars, and axion-electromagnetodynamics with the ORGAN experiment'**
 B. T. McAllister, A. Quiskamp, C. A. J. O'Hare, P. Altin, M. Goryachev, M. E. Tobar
 To appear in Annalen der Physik special issue on wavy dark matter
- Eggemeier et al. 2022 **38. 'Axion minivoids and implications for direct detection'**
 B. Eggemeier, C. A. J. O'Hare, G. Pierobon, J. Redondo, Y. Y. Y. Wong
 Submitted to PRD
- Cooley et al. 2022 **37. 'Report of the Topical Group on Particle Dark Matter for Snowmass 2021'**
 Cooley et al.
Snowmass 2021 Cosmic Frontier CF1 Summary Report
 [Cited by 6 records]
- Surrow et al. 2022 **36. 'Micro-pattern gaseous detectors'**
 Surrow et al.
Snowmass 2021 Instrumentation Frontier IF5 Summary Report
 [Cited by 1 record]
- Adams et al. 2022 **35. 'Axion dark matter'**
 Adams et al.
Snowmass 2021 Cosmic Frontier White Paper (Contributed 3 figures)
 [Cited by 42 records]
- Antybas et al. 2022 **34. 'New Horizons: Scalar and Vector Dark Matter'**
 Antybas et al.
Snowmass 2021 Cosmic Frontier White Paper (Contributed ~2000 words and 1 figure)
 [Cited by 29 records]
- Akerib et al. 2022 **33. 'Dark Matter Direct Detection to the Neutrino Fog'**
 Akerib et al.
Snowmass 2021 Cosmic Frontier White Paper (Contributed 2000 words and 2 figures)
 [Cited by 15 records]

- Abdullah et al. 2022 **32.** [‘Coherent elastic neutrino-nucleus scattering: Terrestrial and astrophysical applications’](#)
Abdullah et al.
Snowmass 2021 Neutrino Frontier White Paper (Contributed ~1000 words and 1 figure)
[Cited by 19 records]
- O’Hare et al. 2022b **31.** [‘Recoil imaging for dark matter, neutrinos, and beyond the Standard Model physics’](#)
C.A.J. O’Hare et al.
Snowmass 2021 Instrumentation Frontier White Paper (Coordinator, and lead author)
[Cited by 11 records]
- Aalbers et al. 2022 **30.** [‘A Next-Generation Liquid Xenon Observatory for Dark Matter and Neutrino Physics’](#)
J. Aalbers et al.
Accepted by *J. Phys. G* (Contributed ~1000 words and 1 figure)
[Cited by 27 records]
- O’Hare et al. 2022a **29.** [‘Simulations of axion-like particles in the post-inflationary scenario’](#)
C.A.J. O’Hare, G. Pierobon, J. Redondo, Y.Y.Y. Wong
Phys. Rev. D **105** 055025 (2022)
[Cited by 14 records, [animations](#)]
- Chen et al. 2021b **28.** [‘Cosmology of the companion-axion model: dark matter, gravitational waves, and primordial black holes’](#)
Z. Chen, A. Kobakhidze, C.A.J. O’Hare, Z.S.C. Picker, G. Pierobon
arXiv:2110.11014
[Cited by 5 records, github page: <https://github.com/cajohare/CompAxion>]
- Chen et al. 2021a **27.** [‘Phenomenology of the companion-axion model: photon couplings’](#)
Z. Chen, A. Kobakhidze, C.A.J. O’Hare, Z.S.C. Picker, G. Pierobon
Eur. Phys. J. C **82** (2022) 940
[Cited by 5 records, github page: <https://github.com/cajohare/CompAxion>]
- O’Hare 2021 **26.** [‘Fog on the horizon: a new definition of the neutrino floor for direct dark matter searches’](#)¹
C. A. J. O’Hare
Phys. Rev. Lett. **127**, 251802 (2021)
[Cited by 34 records, github page: <https://github.com/cajohare/NeutrinoFog>]
- Boehm et al. 2021b **25.** [‘Comment on: Cosmological black holes are not described by the Thakurta metric’](#)
C. Boehm, A. Kobakhidze, C. A. J. O’Hare, Z. S. C. Picker, M. Sakellariadou
arXiv:[2105.14908]
[Cited by 11 records]
- O’Hare et al. 2021a **24.** [‘Particle detection and tracking with DNA’](#)
C. A. J. O’Hare, Vassili G. Matsos, Joseph Newton, Karl Smith, Joel Hochstetter, Ravi Jaiswar, Wunna Kyaw, Aimee McNamara, Zdenka Kuncic, Sushma Nagaraja Grellscheid, and Céline Boehm
Eur. Phys. J. C, **82** 4 (2022) 306
[Cited by 5 records]
- Caputo et al. 2021 **23.** [‘Dark photon limits: a cookbook’](#)
A. Caputo, A. Millar, C. A. J. O’Hare, E. Vitagliano
Phys. Rev. D **104**, 095029 (2021)
[Cited by 68 records, github page: <https://github.com/cajohare/DarkPhotonCookbook>]
- Vahsen et al. 2021 **22.** [‘Directional recoil detection’](#)
S. Vahsen, C. A. J. O’Hare, D. Loomba
Annu. Rev. Nucl. Part. Sci. **71** 189–224 (2021)
[Cited by 33 records]
- O’Hare & Vitagliano 2020 **21** [‘Cornering the axion with \$CP\$ -violating interactions’](#)
C. A. J. O’Hare, E. Vitagliano
Phys. Rev. D **102**, 115026 (2020)
[Cited by 33 records, github page: <http://cajohare.github.io/AxionLimits>]
- Vahsen et al. 2020 **20.** [‘CYGNUS: Feasibility of a nuclear recoil observatory with directional sensitivity to dark matter and neutrinos’](#)
S. Vahsen, C. A. J. O’Hare et al. (2020)
[Cited by 52 records]

- Boehm et al. 2021a **19.** 'Eliminating the LIGO bounds on primordial black hole dark matter'
C. Boehm, A. Kobakhidze, C. A. J. O'Hare, Z. S. C. Picker, M. Sakellariadou
JCAP **03** 078 (2021)
[Cited by 42 records]
- O'Hare et al. 2020b **18.** 'Axion helioscopes as solar magnetometers'
C. A. J. O'Hare, A. Caputo, A. J. Millar, E. Vitagliano
Phys. Rev. D **102**, 043019 (2020)
[Cited by 28 records, github page: <http://cajohare.github.io/solax>]
- O'Hare 2020 **17.** 'Can we overcome the neutrino floor at high masses?'
C. A. J. O'Hare
Phys. Rev. D **102**, 063024 (2020)
[Cited by 35 records, github page: <http://github.com/cajohare/AtmNuFloor>]
- O'Hare et al. 2020a **16.** 'Dark Shards: velocity substructure from *Gaia* and direct searches for dark matter'
C. A. J. O'Hare, N. W. Evans, C. McCabe, G. Myeong, V. Belokurov
Phys. Rev. D **101** (2020) no.2, 023006
[Cited by 46 records, github page: <http://cajohare.github.io/DarkShards>]
- Dafni et al. 2019 **15.** 'Weighing the Solar Axion'
T. Dafni, C. A. J. O'Hare, J. Galán, I. G. Irastorza, F. J. Iguaz, K. Jakovčić, B. Lakić, G. Luzón,
J. Redondo, E. Ruiz Chóliz
Phys. Rev. D **99** 035037 (2019)
[Cited by 31 records, github page: <http://cajohare.github.io/IAX0mass>]
- Evans et al. 2019 **14.** 'SHM⁺⁺: A refinement of the Standard Halo Model for dark matter searches'
N. W. Evans, C. A. J. O'Hare, C. McCabe
Phys. Rev. D **99**, 023012 (2019)
[Cited by 123 records]
- O'Hare et al. 2018 **13.** 'A dark matter hurricane: measuring the S1 stream with dark matter detectors'²
C. A. J. O'Hare, C. McCabe, N. W. Evans, G. Myeong, V. Belokurov
Phys. Rev. D **98**, 103006 (2018)
[Cited by 60 records]
- Knirck et al. 2018 **12.** 'Directional axion detection'
S. Knirck, A. Millar, C. A. J. O'Hare, J. Redondo, F. Steffen
JCAP **11** 051 (2018)
[Cited by 54 records]
- O'Hare & Burrage 2018 **11.** 'The symmetron field profile in the galactic disk'
C. A. J. O'Hare & C. Burrage
Phys. Rev. D **98** 064019 (2018)
[Cited by 18 records]
- O'Hare 2017 **10.** 'Terrestrial WIMP/Axion astronomy'
C. A. J. O'Hare
Contributed to the 13th Patras Workshop on Axions, WIMPs and WISPs, Thessaloniki
[Cited by 1 record]
- O'Hare et al. 2017 **9.** 'Time-integrated directional detection of dark matter'
C. A. J. O'Hare, B. J. Kavanagh, A. M. Green
Phys. Rev. D **96**, 083011 (2017)
[Cited by 23 records]
- Battaglieri et al. 2017 **8.** 'US Cosmic Visions: New Ideas in Dark Matter 2017: Community Report'³
M. Battaglieri et al., FERMILAB-CONF-17-282-AE-PPD-T (2017)
[Cited by 624 records]
- O'Hare & Green 2017 **7.** 'Axion astronomy with microwave cavity experiments'
C. A. J. O'Hare & A. M. Green
Phys. Rev. D **95** 063017 (2017)
[Cited by 59 records]
- Kavanagh & O'Hare 2017 **6.** 'Reconstructing the three-dimensional local dark matter velocity distribution'
B. J. Kavanagh & C. A. J. O'Hare
Phys. Rev. D **94**, 123009 (2016)
[Cited by 24 records]

- O'Hare 2016 **5.** ['Dark matter astrophysical uncertainties and the neutrino floor'](#)
C. A. J. O'Hare
Phys. Rev. D **94**, 063527 (2016)
[Cited by 58 records]
- Mayet et al. 2016 **4.** ['A review of the discovery reach of directional Dark Matter detection'](#)⁴
F. Mayet, A. M. Green, J. B. R. Battat, J. Billard, N. Bozorgnia, G. B. Gelmini, P. Gondolo, B. J. Kavanagh, S. K. Lee, D. Looma, J. Monroe, B. Morgan, C. A. J. O'Hare, A. H. G. Peter
Physics Reports **627** (2016) 1
[Cited by 189 records]
- O'Hare 2017 **3.** ['Theoretical prospects for directional WIMP detection'](#)
C. A. J. O'Hare
Contributed to the 11th Patras Workshop on Axions, WIMPs and WISPs, Zaragoza
[Cited by 1 record]
- O'Hare et al. 2015 **2.** ['Readout strategies for directional detection beyond the neutrino background'](#)⁵
C. A. J. O'Hare, A. M. Green, J. Billard, E. Figueroa-Feliciano, L. E. Strigari
Phys. Rev. D **92**, 063518 (2015)
[Cited by 80 records]
- O'Hare & Green
2014 **1.** ['Directional detection of dark matter streams'](#)⁶
C. A. J. O'Hare & A. M. Green
Phys Rev. D **90**, 123511 (2014)
[Cited by 46 records]

¹ PRL [Editor's suggestion](#) and featured in *APS Physics*

² Featured in *APS Physics*

³ Contributed projections for the CYGNUS experiment

⁴ Selected as a highlighted article in *Physics Reports*

⁵ Contains figure selected for *PRD Kaleidoscope Sep 2015*

⁶ Contains figure selected for *PRD Kaleidoscope Dec 2014*